

## CLAIMS

1. A reinforcing bar binder having a storing chamber provided in a main body of the reinforcing bar binder for mounting a wire reel around which a wire for binding a reinforcing-bar is wound, the wire is twisted for binding a reinforcing bar after it is wound around the reinforcing bar;

wherein said storing chamber is provided with a first detecting means for detecting the amount of rotation of said wire reel and a second detecting means for detecting the number of second to-be-detected portions on said wire reel.

2. A reinforcing bar binder having a storing chamber provided in a main body of the reinforcing bar binder for mounting a wire reel around which a wire for binding a reinforcing-bar is wound, the wire is fed by rotating the wire reel and twisted for binding a reinforcing bar after it is wound around the reinforcing bar;

wherein said storing chamber is provided with a first detecting means for detecting the amount of rotation of said wire reel and a second detecting means for detecting the number of second to-be-detected portions on the wire reel during the amount of rotation detected by the first detecting means; and

the binder main body is provided with controlling means for controlling the amount of feeding of the wire or the twisting torque on the wire depending on the number of the second to-be-detected portions detected by the second detecting means.

3. The reinforcing bar binder according to Claim 1 or Claim 2, wherein the first detecting means detects first to-be-detected portions on the wire reel to detect the amount of rotation of

said wire reel.

4. The reinforcing bar binder according to Claim 3, wherein the first detecting means is a contact-type sensor and the first to-be-detected portions are convex portions or concave portions which are detected by the contact-type sensor while the second detecting means is a non-contact type sensor and the second to-be-detected portions are marks which are detected by the non-contact type sensor.

5. A wire reel used in a reinforcing bar binder having a storing chamber provided in a main body of the reinforcing bar binder for mounting the wire reel around which a wire for binding a reinforcing-bar is wound, the wire is twisted for binding a reinforcing bar after it is wound around the reinforcing bar;

wherein the reel main body is provided with first to-be-detected portions which are detected by a first detecting means in the reinforcing bar binder and second to-be-detected portions which are detected by a second detecting means in the reinforcing bar binder

6. The wire reel according to Claim 5, wherein the first to-be-detected portions are detected by the first detecting means to detect the amount of rotation of the wire reel and the second to-be-detected portions are detected by the second detecting means to identify the type of the wire reel .

7. The wire reel according to Claim 5 or Claim 6, wherein the first detecting means is a contact-type sensor and the first to-be-detected portions are convex portions or concave portions which are detected by the contact-type sensor while the second

detecting means is a non-contact type sensor and the second to-be-detected portions are marks which are detected by the non-contact type sensor.

8. A wire-reel identifying method used in a reinforcing bar binder having a storing chamber provided in a main body of the reinforcing bar binder for mounting a wire reel around which a wire for binding a reinforcing-bar is wound, the wire is fed by rotating the wire reel and twisted for binding a reinforcing bar after it is wound around the reinforcing bar;

wherein the amount of rotation of the wire reel is detected and the number of to-be detected portions provided on the wire reel is detected during the detected amount of rotation of the wire reel to identify the type of the wire reel.

9. The wire-reel identifying method according to Claim 8, wherein the amount of feeding of the wire or the twisting torque on the wire is adjusted in accordance with the identified type of the wire reel.

10. A wire-reel identifying method used in a reinforcing bar binder having a storing chamber provided in a main body of the reinforcing bar binder for mounting a wire reel around which a wire for binding a reinforcing-bar is wound, the wire is fed by rotating the wire reel and twisted for binding a reinforcing bar after it is wound around the reinforcing bar;

wherein first to-be-detected portions provided on the reel main body are detected by a first detecting means to detect the amount of rotation of the wire reel; and

the number of second to-be detected portions provided on

the reel main body is detected by a second detecting means during the detected amount of rotation of the wire reel to identify the type of the wire reel.

11. The wire reel identifying method according to Claim 10, wherein the first detecting means is a contact-type sensor and the first to-be-detected portions are convex portions or concave portions which are detected by the contact-type sensor while the second detecting means is a non-contact type sensor and the second to-be-detected portions are marks which are detected by the non-contact type sensor.